

President Emeritus - Tom Scorsone, KC2FCP President - Bryan Jackson, W2RBJ Vice-President - Walt Snyder, N2WJR
Secretary - Steve VanSickle, WB2HPR Treasurer, Don Mayotte, KB2CDX
Board Members: Tom Scorsone, KC2FCP Russ Greenman, WB2LXC Steve VanSickle, WB2HPR

EGARA “New Ham Kit” Still a Hit!

It's been two years since ARRL featured the club's “New Ham Kit” in the pages of its QST magazine, but it's still receiving interest by Amateur Radio clubs, VE examiners and new operators around the country. EGARA designed the kit as a way to help newly licensed hams get on the air, explaining basic operating tips, equipment needed and using repeaters.

The kit immediately received an enthusiastic response from the ham community after it appeared in the February 2021 issue of QST, with dozens of requests coming in from other clubs for permission to use the material. And, the requests were not just from clubs in the United States, with inquiries coming from as far away as Australia.

EGARA began distributing copies of its *New Ham Kit* back in 2018 to new Technician class operators who passed their tests at the club's VE licensing sessions. After getting lots of positive feedback from those who were given the kit, it was decided to write an article for QST to share the idea with other clubs.

Because of the strong response, it was decided to make the kit available for download from the club's website. It can be found at: https://www.egara.club/_files/ugd/72a611_539e8bba4cce440abc51a06800bcb260.pdf. The kit is free of charge.



In This Issue

Page 1 - New Ham Kit a Hit / ARRL Action
Page 2 - Why We Need Shortwave 2.0
Page 5 - January Meeting Minutes
Page 6 - History of Ham Radio
Page 9 - Morse Code Alive and Well
Page 12 - On the Beam News & Notes
Page 13 - Calendar / Classifieds / Pro Tip

ARRL Board Approves Free Membership for Students

ARRL is offering a no-cost Associate Membership to the League for full-time students under the age of 21.

The ARRL Board of Directors approved the new membership tier during its Annual Meeting last month in Connecticut.

For decades, ARRL has offered a reduced dues rate for young hams, currently priced at \$30 per year. The move was made to help boost participation by younger people in Amateur Radio and entice them to join the organization.

Meanwhile, January also saw regular dues increase by \$10 to a total of \$59. ARRL also dropped sending printed copies of its QST magazine as part of the change. It now offers it as a digital download as part of its basic membership, with the option of receiving copies costing an additional \$25 per year.

Why We Need “Shortwave 2.0”

The author argues that radio is the ultimate Internet circumvention tool

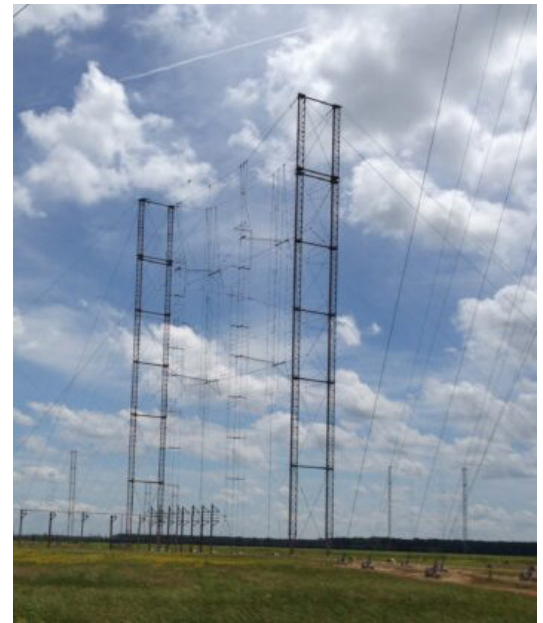
By Kim Andrew Elliott

Debate about the future of shortwave broadcasting focuses on the correct observation that shortwave listening is no longer a mainstream activity in most of the world.

The future of shortwave broadcasting — “Shortwave 2.0” — will not involve any revival of those large audiences. Instead, it will be an activity of communications enthusiasts and professionals. They would comprise a reserve corps able to relay information to larger populations in their countries when newer media are blocked or otherwise become unavailable.

The beginning of the end of “Shortwave 1.0” was described in “Shortwave Broadcasting Begins Its Long Slow Fade,” an article I wrote in the 1995 World Radio TV Handbook. I noted the elimination, in the post-Cold-War media environment, of shortwave broadcasts in some languages, as well as some entire transmitting sites, e.g. Trans World Radio on Bonaire and Far East Broadcasting Company in California (KGEI). In my (then) role as audience research analyst at the Voice of America, I listed examples of declining shortwave audiences.

The really big chunk fell from the shortwave glacier six years later, when BBC World Service ended its English broadcasts to North America. In the following years, other international broadcasters followed, first dropping shortwave to North America, and eventually to other parts of the world. The aforementioned 1995 World Radio TV Handbook listed 27 European countries with English broadcasts on shortwave to North America. Now only Radio Romania International has shortwave English to North America.



Shown is a curtain array antenna used by WRMI in Florida to reach Europe.

The exodus from shortwave (for both international and domestic broadcasting) was due to competing media, including relays on FM stations in the target country, satellite broadcasting (mostly television) and, especially, the Internet.

For the audience, Internet content is easier and more reliable to receive. It also allows content to be received on demand, and text or video in addition to the audio to which shortwave was restricted. As an audience researcher, I could see in the datasets that audiences for international media were migrating from radio to Internet-based media. For the broadcaster, in addition to keeping up with audience preferences, the Internet is a cheaper way to transmit information to the world.

Internet, increasingly blocked

Because of the Internet’s ability to move uncensored news and opinion within nations and across boundaries, it was seen as a transformative tool for democracy. But, soon enough, regimes developed methods to block information they did not want coming into their countries. Prominent among these are China’s “Great Firewall” and Iran’s “Halal Internet.”

Circumvention tools and VPNs have emerged to allow access to websites and platforms that have been blocked. The circumvention tools work only as long data is on the lines. Ultimately the lines can be switched off or cut. In this circumstance, no circumvention tool will work other than wireless ones. Radio is the ultimate Internet circumvention tool because it is not the Internet. And it can’t be tracked.

This brings us to “Shortwave 2.0.”

-continued on page 3-

Why We Need “Shortwave 2.0”...

“Shortwave 2.0 won’t reach the audience of millions as in the heyday of shortwave decades ago. It will reach those who seek comprehensive, reliable, credible information. This audience will be technically inclined: radio amateurs, hobbyist shortwave listeners, scholars, technology enthusiasts and government and military personnel with access to receivers. They will pass on the information they have received to the larger audience.”

Shortwave 2.0 won’t reach the audience of millions as in the heyday of shortwave decades ago. It will reach those who seek comprehensive, reliable, credible information. This audience will be technically inclined: radio amateurs, hobbyist shortwave listeners, scholars, technology enthusiasts and government and military personnel with access to receivers. They will pass on the information they have received to the larger audience.

Text via shortwave

An important feature of Shortwave 2.0 is that it is not limited to audio.

Starting about 2010, I was introduced to the digital modes of amateur radio. I was amazed that such a weak signal, in noisy conditions, could produce text. At that same time, VOA, RFE/RL and RFA were starting to feel the effects of Internet blocking, especially in China and Iran. These two developments, combined, pointed to radio as a possible solution.

Starting in 2013, I was able to test the concept in “VOA Radiogram,” an experimental weekly program on the Voice of America. Instead of voice and music, we transmitted, on a conventional amplitude-modulated double sideband transmitter at Greenville, N.C., the warbles of the amateur radio digital modes. We tried most of the modes available to the amateur radio community. After several weeks, we concluded that MFSK32 (120 wpm) and MFSK64 (240 wpm), which can transmit images as well as text, provided the most satisfactory performance for conditions on the shortwave broadcast bands.

An example of receiving text via shortwave. An Android device with the necessary app sits next to a portable shortwave radio. No patch cord.

In 2017, when I retired from VOA, “Shortwave Radiogram” succeeded “VOA Radiogram.” Transmission of text moved to private shortwave stations WRMI in Florida and WINB in Pennsylvania.

Because “Shortwave Radiogram” is transmitted on a regular amplitude-modulated shortwave transmitter, it can be received on any shortwave radio, from inexpensive portable radios with no sideband capability, to more elaborate communications receivers, amateur transceivers (most of which nowadays have general coverage receivers), and software defined radios (SDRs).

For now, the audio must be piped to a PC equipped with decoder such as Fldigi from w1hkj.com. For Android devices, AndFlmsg and its receive-only version TIVAR are available. Decoding can be as simple as placing a mobile device next to a portable radio, for “acoustic coupling.”

The big advantage of text via shortwave is that it can be received successfully in poor reception conditions, in which voice broadcasts are difficult to comprehend. Text can be read and re-read, and passed on to others through personal media. The content can start online in the broadcaster’s country, shifting to wireless or satellite to get past blockage at the border, then back online within the target country. Text can be received while away, or while sleeping, when reception conditions are optimum, then read at a convenient time.

Why We Need “Shortwave 2.0”...

This radiogram concept is not Digital Radio Mondiale. DRM requires special transmitters (or exciters) and hard-to-find receivers. I know from hundreds of hours of DRM reception since the early part of this century that DRM signals drop out too often in the face of a weak signal, fading or even modest amounts of interference — i.e., typical shortwave conditions.

A hybrid digital-analog system

As shortwave listeners know, analog carriers degrade but do not drop out until reception is very poor. The digital mode clings to the tenacious analog carrier, using its error-correction tricks to convey content successfully even in unfavorable conditions. It is therefore a hybrid communications method, employing the best of both analog and digital. (Text via radio was also resistant to jamming in a few experiments that I was able to conduct.)

In future wars, conflicts and crises, we can expect a hostile environment for international media. If online communication is interdicted, shortwave can come to the rescue. But, in recent decades, so many shortwave (and medium-wave) transmitting sites have been dismantled that signals will often have to be transmitted to the affected region from distant or less than ideal locations. The radiogram concept of text via radio is robust and can survive this situation.



An example of receiving text via shortwave. An Android device with the necessary app sits next to a portable shortwave radio. No patch cord. The author believes international shortwave sites are essential to reach remote sites when the Internet is blocked, which he expects to happen more often.

Although text via radio can be received on any existing radio, international broadcasters need to pay more attention to the receiver market. Many consumer-grade portable radios with shortwave bands, especially those sold in developing countries, are of poor quality. International broadcasters should provide advice to audiences on how to select, and where to buy, radios with satisfactory performance. Further, broadcasters should become involved in the design of shortwave radios. An ideal radio of the near future should receive and decode text. (Some amateur radio transceivers already do this.)

In the meantime, international broadcasters should not close any more shortwave transmitting sites. They are essential facilities to relay information when the Internet is blocked, which will happen in more places, more frequently and more thoroughly.

On those transmitters, text should be broadcast at least once a week. This will enable early adopters to become familiar with the concept. It will also get the attention of receiver manufacturers and software developers.

During wars and crises, the Internet will be most tightly restricted at a time when uncensored news is most needed. Information gathered at great effort and expense may not be able to reach an audience. International media organizations lacking radio capability risk becoming trees falling in the forest.

About the author: Kim Andrew Elliott

The author is a former audience research analyst at the Voice of America, where he also hosted the media news program “Communications World” and the experimental “VOA Radiogram.” He produces “Shortwave Radiogram,” broadcasting text and images via analog shortwave broadcast, from WRMI in Florida and WINB in Pennsylvania.

EGARA January Meeting Minutes

- The January meeting of the Egara was called to order by President Bryan Jackson, W2RBJ at 7:00 PM. There were 19 members in attendance at the Masonic Temple. After a round-robin introduction, Bryan welcomed new members: Mike La Mountain, KE2AWY, Christian Sweningsen, KD2LIN, Thomas Timarchi, KC1SKG, Jean Gunewald, KD2SPI, and Datta Haynes, KA6PAT.
- The President's provided his report: Member dues payable through PayPal are now eligible for lower processing fees due to the club's 501(c)3 status. Generous donations from Frank Cavaliere, KE2ATD and Pete Sochocki, NY2V were acknowledged. Ridge Macdonald, KB2HWL has donated a Baofeng dual-band hand-held radio to the club which can then be raffled off.
- The Capital District Off-Road Club will be sponsoring an Egara Technician licensing class at the Curtis Lumber corporate office in Ballston Spa. The classes are planned for February 10 and 11, with the examination on the 11th. VE's and training assistants are being sought. Bryan Jackson, W2RBJ and Pete Sochocki, NY2V can be contacted for further information.
- Fred Halley, W2EMS is the new ENY Section Emergency Coordinator replacing Dave Galletley, KM2O.
- Volunteers were asked to help with the monthly Lodge maintenance. The monthly cleaning was set for January 15th at 10:30 AM.
- Items for the buy/sell/swap column in the monthly club newsletter can be sent to Bryan Jackson, W2RBJ. Officer's reports were given: The Treasurer, Don Mayotte, KB2CDX, reports that we have a reserve fund for the annual hamfest. Don acknowledged receipt of those members who have paid dues for 2024.
- Members who are interested in Winter Field Day will be sent further information by email. The monthly raffle was conducted, with several nice prizes awarded.
- Fred Sochocki, NY2V gave a very entertaining and informative multi-media presentation on the development of mobile telephone, from early inception until cellular technology replaced the IMTS system. Also, in a separate video, "the Radio Girl" received some coaching on operation of vintage Heathkit equipment. Finally, the club members were treated to a historic account of Artie Moore, an early wireless pioneer and his association with Sir Oliver Lodge, Guglielmo Marconi, later inventions and achievements and his connection with the Titanic disaster.
- Refreshments were enjoyed by the membership. The meeting was adjourned at approximately 8:18 PM.
- Minutes recorded by Secretary Steve VanSickle, WB2HPR

The History of Ham Radio: Strays – Perspectives on Amateur Radio, 1930

Chris Codella, W2PA, author, John Pelham, W1JA, editor, Phil Johnson, W2SQ, editor

(Editor's note: By special arrangement with the authors, Sidebands is pleased to present this multi-part series on the history of ham radio. Subsequent chapters will be published in future monthly editions of the newsletter)

As the decade of the 1920s drew to a close, amateur radio was an internationally recognized user of the public airwaves, although the view of individual countries around the globe varied from enthusiastic support to complete prohibition. The American government was solidly among the former.

Uncle Sam Loves His Hams

The 1927 law provided a process for appealing decisions of the Federal Radio Commission. In one such appeal by commercial concerns seeking additional allocations, the commission wrote a lengthy response to the DC Court of Appeals explaining their rationale behind the allocation process. Part of that response was a strong, lengthy (but worth reading) endorsement of amateur radio:

"Amateurs are persons engaged in radio communication for personal and altruistic reasons. They are precluded by the International Convention and the General Orders and Regulations of the Commission, from gaining any financial benefit from their transmissions. Prior to February 23, 1927, they were entitled to use the entire range of frequencies from 1500 kilocycles upwards. They were the first to make practical use of short waves and demonstrated their efficacy to the world by feats of the most dramatic character. Their contributions to the science of radio communication have only too often been the demonstration of the utility of frequency ranges only to arouse the desires of commercial interests to deprive them of the use thereof. At the various National Radio Conferences, speaking through their authorized representatives, they offered to relinquish most of their territory for commercial development. During the breakdown of the law they policed their own frequency bands and fulfilled their pledges.

It is only upon the North American Continent that they have been extensively encouraged, to which some are inclined to attribute much of America's leadership in radio. European governments were inclined at the Washington Conference to impose the most drastic reductions upon amateur frequency bands. In spite of the great efforts in their behalf of the North American delegates, very serious reductions were made in the width of the bands. As a result, in the range now under consideration, over 17,000 amateur stations in the United States are crowded, for domestic communication, into the bands 1712 to 2000 kilocycles and 3500 to 3996 kilocycles and they suffer an even worse congestion in their international bands. Nevertheless, through cooperative effort, they have expended large sums of money and have exerted great effort and ingenuity toward the development of new types of apparatus and circuits to enable them to survive under these circumstances.

They communicate by radiotelegraph and radiotelephone and experiment in facsimile and television transmissions. They operate training communication nets for both the Army and the Navy. They afford communication service in times of emergency, flood, and tornado to railroads and the general public. For sixteen years they have offered a free message service to all who desired to use it as a means of providing the traffic for their tests, communications, and experiments and they have developed a world-wide relay organization for this purpose.

In recognition of their utility and in realization that from the amateur ranks came the radio operators who gave our Army and Navy their communications during the late war as well as most of the radio inventors, engineers, technicians, and operators, it is to be regretted that the provisions of the International Radiotelegraph Convention have afforded them so little in the way of frequency bands."

Unknown Friends

A more personal perspective was offered by T. B. Norris, W2ATT in a letter to QST in December 1929. Amateur radio, as perceived by the public, is a highly technical hobby pursued by people interested in the radio art. But there is more to it, wrote Norris:

-continued on page 5-

History of Ham Radio...

“...the amateur gives a far call through the weird etherial spaces; his hand with utmost care of manipulating his telegraph ‘key’ spells out definite calls which his equipment hurls into the atmosphere. He listens for an answer; lo and behold! he hears another amateur calling him. ‘Contact,’ so to speak has been made. Conversation, signal reports, etc., friendly flow between the two ‘unknown friends.’ They do not know each other personally, yet with mutual understanding and sympathy, each has an ‘unknown friend.’ Does not this factor alone, make our ‘ham’ radio hobby a most worth-while pursuit?”

XYL

“Mrs. W8CNO” was credited with inventing the term “XYL” to describe a married woman.³ She explained that it “means just what it, says, i.e., ex-YL, which means that I am no longer exactly a YL operator, nor yet can I be classed as an OW.”

However, “Very few guesses as to [YLs] meaning are correct,” she complained, “which may not indicate an over-abundant amount of intelligence on the part of the male of the species!” It was not simply a more polite version of OW, nor was it a synonym for “old maid.” She credited arctic explorer Donald MacMillan for getting her into “the game,” mostly from being inspired by radio operations during his trips to the Arctic [add ref to previous chapters].

Discouraged at first by having to learn CW, her new neighbor, W8DED, tuned in and copied WNP for her. This made her determined to master it. She got her license the next summer in 1926. She enjoyed handling traffic and DXing but got a thrill mostly out of establishing new friendships, writing:

“Only we, who have sat in a fast-chilling room, listening with queer, hypnotic fascination to a friend, a mile, a thousand—or even ten thousand miles away, saying “73” can understand. We snap on our transmitter and out through the clear air go thin, etheric fingers; out through the infinite goes a handclasp of friendship. So we, sitting alone by our set, become suddenly warm and happy, for the Angel of Friendship has entered and we know that across the miles we have found a friend. Outside, pale stars gleam down on our invisible bond, a bond stronger than the strongest steel. Of such stuff are amateur [radio] friendships made.”

Nevertheless, she had taken note of three distinct types of male operators on the air. The first was the “budding Romeo.” They came in all age groups. Most hams, she believed, prefer a YL familiar with radio. The second type was extremely courteous, exaggerating signal reports and complimenting her on her fist. Aware of the phenomena, she usually divided such a signal report by a factor of two or three. Both types prized her QSL card, especially one with a picture that could be hung on the wall. The third type consisted of those who resented women being involved in radio at all. She first ran into one of those at her license testing session where a male examinee, upon seeing her, announced in a “disgusted” tone to the assembled group that “the good old days are gone forever.” Although she sometimes has regrets, she’d gotten a lot of pleasure out of being a ham. “The ham game is a great old game, and the species ‘ham’ is a great old genus, and I say—‘Long may it, and they, flourish.”

HPM at Decade’s End

In tribute to Maxim turning 60, the Communications Department organized a mass relay of congratulatory messages to be delivered on his birthday. The trick was to keep it secret. So an announcement of the event was mailed to affiliated clubs and Communications Department appointees (such as Official Relay Stations) across the US and Canada, who then notified their friends about the event. Those who kept regular scheduled contacts with foreign stations passed the word along as well.

The relay itself began at 6:00 p.m. EST on Saturday 31 August 1929 and ran until the same time on Monday 2 September, Maxim’s birthday. Several Connecticut stations were on the air collecting the birthday greetings, and at W1MK, the ARRL HQ club station, three operators kept watch all weekend on 3,575 and 7,150 kHz. This alone produced what we’d call a pileup today with many stations sending tens of messages each and waiting to take their turns working W1MK. From around the world and across the country, the station received 356 messages, most of which were delivered in the evening on his birthday.

W1AOX received a special commendation letter from Maxim for handling the most messages (other than W1MK), with 151, one of which was his own. Awards also went to the ten stations outside Connecticut who had handled the most messages.

-continued on page 8-

History of Ham Radio...

W4SI in Atlanta was particularly active in the preparations and personally phoned all the amateurs in the area to get them involved. As a result, Atlanta accounted for much more than its expected share of the delivered messages. Besides Atlanta, the birthday greetings originated from 41 states, DC, and three US possessions, all but one Canadian province, and seven foreign countries. Thirty-nine radio clubs sent messages, too. In all, over 700 messages were delivered to Maxim, who was completely surprised.

“I hand it to you, gentlemen, and ask you to accept my sincere thanks,” he wrote. “It touched me more deeply than you may believe. To have my A.R.R.L. friends give me the greatest birthday celebration of my life means a very great deal, indeed.”

Keeping the secret was particularly remarkable because the Board of Directors had originally begun planning the event a year earlier, getting Maxim’s age wrong, and then proceeded to keep it a secret for an additional year—better early than late.

Temporarily resuming his duties as QST editor while Warner traveled to The Hague for an international advisory conference, Maxim reminisced about the early days when he used to write all the editorials. At 14 years old, QST was now “the oldest all-radio magazine in the country,” he wrote, outliving many radio magazines that had come and gone during the initial stage of the broadcasting boom.

At the beginning, he and Tuska produced the magazine in a third-floor room of Tuska’s mother’s house. A high-school student at the time, Tuska would work on QST after school. The two would also consult during afternoons at Maxim’s business office and compose each month’s issue, which typically ran a dozen or so pages long. Maxim would pick up the finished issues from the printer in his Franklin touring car and bring them home where he, Mrs. Maxim, their children, Tuska, and “a neighbor or the house maid” would get them ready for mailing. He would then deliver them the next morning to the post office “in a single bag.”

At that time a 25-mile QSO “was a real achievement” and he vividly remembered trying without success to set one up with another ham only 12 miles away. Things had changed dramatically since those days. With that in mind he wondered, if rhetorically, whether there were as many new surprises around the corner as had happened between the early days and 1929. He was certain there were—after all, everyone considered 425 meters to be the lower limit of usability back then.

Maxim believed that amateur radio was “one of the amazing products of this century”—an amateur group unlike any other—depended upon for emergencies, providing communications for expeditions of exploration, and led the way in a field of scientific research. He believed it had been amateurs themselves who made amateur radio what it had become rather than the other way around, by organizing and working as a “coordinated whole,” which, in turn, had brought opportunities. And the opportunities would continue; he predicted that amateurs would be involved in a continuing stream of advancements, mentioning the possibility of color television. “Let’s keep everlastingly at it, fellows.”

Kenneth B. Warner, Ham I Am

By the 1930s, radio amateurs were undoubtedly hams, and had been for a very long time—no longer wireless bugs as in the early days. The last debate about it had died out shortly after the birth of the ARRL. Nevertheless, in December 1931 Warner felt compelled to write about the etymology of the term ham in response, he claimed, to correspondents who still, “approximately every so often,” complained about its use. Why, they ask, is it used when “everybody knows that a ham means a punk, a lid, a poor performer, a person not fully familiar with his vegetables.” In rebuttal, he assured them it was an honorable tag and, in fact, had some purported origins that actually related to the literal meaning of being an amateur.

He cited “somebody’s dictionary” as suggesting ham is derived from hamfatter, a word used in the late nineteenth century to mean an incompetent actor or musician, and in the early twentieth as a synonym for amateur. This would also account for its general use in the performing arts.

Another possible origin was sports slang in England where ‘am was simply an abbreviated form of the word amateur, and “which the cockney foot-racers and pugilists of the [1870s] pronounced h’am.” Either way, wrote Warner, a direct connection to amateur reinforces the idea that there is no derogatory meaning at all. Instead, according to Webster, a ham in this sense is a person “who is attached to or cultivates a particular pursuit, study, or science from taste, without pursuing it professionally.” Its prior, scornful use by wire telegraphers towards poor operators notwithstanding, radio amateurs now embrace it fully and “accept no such connotation,” he declared. “Hams we are, then, and proud of it!”

Morse Code Is Alive and Well at KPH

The historic, maritime radio station in California recently held an over-the-air cryptographic challenge

By Elle Kehres, Radio World

On January 20th, more than 150 listeners across the U.S., Italy, France and Japan huddled by their radios to decipher a series of Morse Code transmitted by the Maritime Radio Historical Society.

MRHS was formed on July 12, 1999, the date of the supposed last commercial Morse transmission in the U.S. Today, the group operates stations KPH, KFS, KSM and, on amateur frequencies, K6KPH. In addition to honoring the craft of maritime radio, KPH also hosts a number of events — most recently, an over-the-air cryptographic challenge.

A Quick History Lesson

During the Cold War era, “numbers stations” were frequently heard on the shortwave bands by radio amateurs and SWLs (shortwave listening). Using voice or Morse Code, these stations would broadcast encrypted messages in the form of five-letter groups of numbers.

The encryption methods used by number stations are widely believed to use a one-time pad (OTP) procedure: the simple addition (or subtraction) of a set of random numbers from the OTP to encode (or decode) the plaintext. Once used, the OTP key was never re-used and destroyed after use. “Number stations still offer a powerful advantage in our modern world: provably unbreakable security and complete anonymity,” says MRHS on its website. “All the recipient needs are the OTP, a shortwave radio and to be on the right frequency at the right time.”

KPH's Crypto Transmission

On Jan. 20, KPH transmitted a coded message consisting of five-digit groups. The message was encrypted using typical Cold War numbers station cryptographic procedures. All KPH listeners were invited to try their hand at receiving and decrypting the message. To recap the event, and to learn more about KPH, Radio World chatted via email with Bill Ruck, one of KPH's passionate volunteers.

Radio World: Can you share a little bit about KPH's history?

Bill Ruck: When the maritime business collapsed the [former KPH] licensee sold the license and shut down the transmitters. The founders of the Maritime Radio Historical Society went to Point Reyes National Seashore with a proposal to operate the station. They accepted the proposal and now we operate, maintain and interpret the station for visitors in partnership with Point Reyes National Seashore. It is now a National Park Service Historical Site and on its way — very slowly — to becoming a NPS Museum.

RW: How often does KPH hold events like this past weekend's crypto transmission?

Ruck: It takes a lot of time to put this together but we really want to do a crypto event twice a year. This is our third crypto event. The first two used Enigma (German WWII system) encryption.

RW: What was your role with the event, and at KPH in general?

Ruck: While I really like to work on equipment lately I have mostly been “interpreting,” giving descriptions of what we do at KPH to visitors. Last Saturday, I explained not only the history of KPH but what we were doing, and kept the visitors from annoying the operators sending the five number groups.

RW: How and why did you get involved at the station?

Ruck: Long story. One of my high school friends worked for Radio Corporation of America (RCA) in downtown San Francisco part time at night. When he graduated he became the teletype operator at Point Reyes. I used to hang out with him while he worked and saw KPH in full operation about 50 years ago.



This is the KPH operating room at the Point Reyes receive site. From left to right is Steve King, almost behind the message rack is Roy Henrichs, to the right is Wally Pugh and standing is Kevin McGrath.

Morse Code Is Alive and Well at KPH...

Then, years later, a mutual friend invited me to join, not knowing my previous experience at KPH. It was too easy to get sucked in. I have an active interest in the history of technology, especially radio, and to be involved in a radio station that dates back to 1905 is heaven for me.

RW: What kind of programming does KPH do outside of these events?

Ruck: Every Saturday we broadcast marine news and weather in both Morse Code and teletype. There are a few, mostly historic, ships that have the equipment and operators to send messages in Morse. If you take a SS Jeremiah O'Brian San Francisco Bay Cruise (which is highly recommended) you can go to the ship's radio officer, fill out a radiogram blank and watch as the radio officer sends the message to us. We then forward that message via email. We also send the JOB "Air raid Pearl Harbor. This is no drill" just because we can. We also operate on amateur HF bands under the call K6KPH. Same thing — hand-sent Morse Code.

RW: How many volunteers help to keep the station running?

Ruck: We have about eight regulars and a few more that come by once in a while. We NEED more volunteers.

RW: Why is keeping the art of Morse transmissions alive important to KPH, and you?

Ruck: For almost 100 years maritime radio was the only contact between a ship at sea and land. Until the 80's this was almost all hand-sent Morse Code. Gradually, several technologies took over and today a ship sends email via satellite. We honor the men, and some women, that were radio officers at sea.

I tell visitors "We do the radio equivalent of a Civil War re-enactment." There is no money in hand-sent Morse Code anymore, but by keeping the single operational Coastal Marine Station in the U.S. on the air — even if only Saturdays — is living history. While the KPH project is well known in our limited circles, my goal is to get the word out as much as possible.

So, What Was Transmitted?

Here's the Numbers message as sent (both CW and RTTY):

CQ CQ CQ DE KPH KPH KPH
CQ CQ CQ DE KPH KPH KPH
NUMBERS MESSAGE FOLLOWS

=

447 447 447

=

14408 22398 89277 37674 58289
07722 15378 84975 30552 61128
69986 02108 68467 10079 92331
32982 54092 37446 22905 15340
17129 81152 39418 67073 25414
81456 43361

=

And here is the clear text:

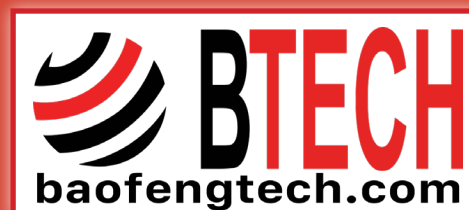
CURRENT OP COMPROMISED. ABORT.
TRAVEL IMMEDIATELY TO ISTANBUL VIA SWISS PASSPORT.
CONTACT AGENT MAX. DANGER, INSIST ON MOSCOW RULES.
BURN AFTER READING.



Bill Ruck in front of one of MRHS' Press Wireless PW-15 transmitters. "This is a WWII vintage transmitter that operates every Saturday," he says.

Elle Kehres: The author is a content producer for Radio World with a background spanning radio, television and print. Before coming to Radio World, she was the assistant news director at an award-winning radio station in North Carolina.

*Valentine's Day is a Great Time to Love Your Shack!
Get The Gear You Need From a EGARA Hamfest Sponsor!*



On the Beam

News & Notes

FCC Will Add Vehicles for Pirate Radio Enforcement

The commission also will hire more field agents for the project

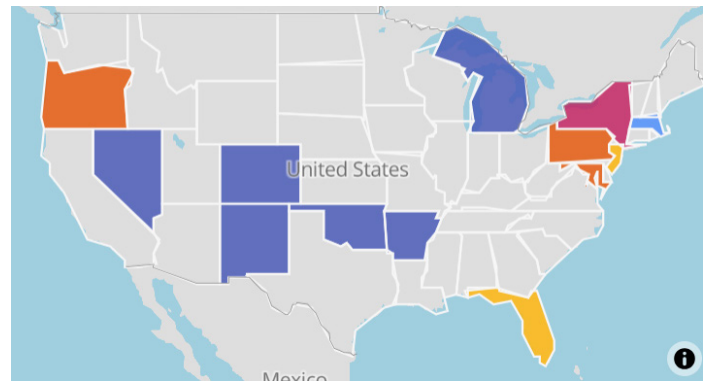
To help fight pirate radio, the Federal Communications Commission has hired four full-time investigators and is in the process of hiring more. That's according to the FCC Enforcement Bureau's annual report to Congress about its enforcement efforts to fight illegal radio.

The initial efforts will be directed at pirates on the commercial broadcast bands.

The FCC has also ordered six vehicles to support the hires with mobile direction-finding equipment. "These six vehicles will be outfitted in the 2024 and 2025 calendar years ... and will include specialized hardware and software for the detection for pirate radio operators," the Commission said. "We also purchased additional equipment that will help us identify and locate pirate radio operators."

The FCC must submit the report under the Preventing Illegal Radio Abuse Through Enforcement (PIRATE) Act, which became law in 2020. The act increased the maximum monetary penalties for pirate operators; those caps now are \$119,000 per day and \$2.4 million total.

The Commission reported to Congress that during the past fiscal year, it announced its first proposed fines under the act, including a maximum one against César Ayora and Luis Angel Ayora for pirate broadcasting in Queens, N.Y. That fine was later affirmed, though there has been no indication that it has been paid.



Though not in fiscal 2023, the commission in November also proposed major fines against three more operators in the New York City area. The color-coded map shows which states have seen FCC pirate radio enforcement since mid-2020.

The act also requires the FCC to conduct annual enforcement "sweeps" of pirate radio in the five markets with the most pirate operations; the commission said it began sweeps in late 2022, though it gave no details other than to say that it is seeking to hire agents in areas where it conducts the sweeps. The PIRATE Act also gave the FCC more enforcement authority over property owners and managers that allow pirates on their property.

In FY23, the Enforcement Bureau said, issued 44 notices to owners and landlords, including 25 related to pirate sweeps. "Because pirate radio stations often cease operating for a period of time but then return, the bureau will continue to monitor the properties for which notices were provided and will initiate enforcement action where appropriate," it stated.

And the act required the FCC to build a database of pirate enforcement efforts. It debuted in January last year and has been updated through Dec. 31. The database lists 90 enforcement actions over the past 3-1/2 years, including the fines discussed above, a few consent decrees and other NALs, and the notices to landlords. New York, Massachusetts and Florida have seen the most enforcement activity during that time, with New York alone accounting for almost 40% of the actions.

CALENDAR

February 14, 2024 - Regular monthly club meeting, East Greenbush Masonic Lodge

February 10-11 - EGARA Technician class for members of CDJW Club. EGARA members invited to help instruct.

June 2, 2024 - Annual EGARA Hamfest. East Greenbush Volunteer Fire Department, Phelps Road, Rensselaer.

Pro Tip: Surge Protectors that Don't

Just because you've installed a surge protector on your electronic gear doesn't mean you're all set. Many units being sold today -- especially cheap ones -- aren't designed to clamp high voltage surges that can destroy your equipment.

Simply put, the lower the voltage clamp, the better the protection.

Many surge protectors tout their Joule rating -- but this is misleading. It really doesn't matter how many joules your surge protector offers -- that's just how much energy it can take before it fails.

If it has a high clamping voltage -- say 800 volts -- even a small power surge can still damage your devices because it will let that much voltage through before it takes action.

To be safe, make sure your surge protector has a clamping voltage of no more than 330 volts.

The East Greenbush Amateur Radio Association

Organized in 1998, by Bert Bruins, N2FPJ, (SK) and Chris Linck, N2NEH, the East Greenbush Amateur Radio Association, an ARRL affiliate, is committed to providing emergency services, educational programs, and operating resources to amateur radio operators and residents of the Capital Region of New York State. The club station is W2EGB. The club also has several VHF and UHF repeaters open to club members and the public.



GEAR FOR SALE

- **Yasau VX5R radio.** 50/144/430 MHz triple-band FM handheld transceiver with wide-band receive coverage. Up to 5 Watts of power output. VFO-A / VFO-B split and linking modes. Dual-watch feature. CTCSS and DCS encoder/decoder. Multi-section Antenna for 6-meter and VHF/UHF bands. Tough aluminum diecast construction. Asking \$175.

Contact Ridge at kb2hwl@gmail.com

-
- Heil RS 1 12' riser brand new \$ 30.00

Contact Walt, N2WJR at N2WJR07@gmail.com

-
- **VIBROPLEX "Bug" semi-automatic key.** Original "PRESENTATION" Model with Gold Plated baseplate escutcheon. Beautiful heavily chromed upper parts, bright red finger pieces, jeweled bearings. Lists for \$350 but you can own this beauty for only \$250, plus postage. In absolutely beautiful condition, this dazzling example of Vibroplex engineering will be supplied in a unique hard-shell protective carrying case.

Contact Steve at: (518) 326-0902 or
stevewb2hpr@gmail.com

**Sell your unused gear with a
free ad in Sidebands!**

**Send details to:
W2RBJ@Outlook.com**